

stress is laid on genetical rather than on cytological evidence, the author attempting to show that, apart from a few facts about inert chromosome regions and the like, the whole of our knowledge about crossing-over can be treated without reference to cytological observations. This is reassuring in view of the fact that the interpretation of cytological data is not yet always beyond controversy. A critical—perhaps slightly too critical—chapter is devoted to C. D. Darlington's theories of crossing-over. There are eighteen pages of references and an index of authors and subjects.

The book will be very helpful to research workers and for the preparation of lectures.

H. G. HILL.

ANTHROPOLOGY

Herskovits, Melville J., and Herskovits, Francis S. *Suriname Folk-Lore. With Transcriptions of Suriname Songs and Musicological Analysis* by Dr. M. Kolinski. COLUMBIA UNIVERSITY CONTRIBUTIONS TO ANTHROPOLOGY, Vol. XXVII. New York, Columbia University Press. London, 1936. Oxford University Press. Pp. xxii + 766. Price 25s.

A REMARKABLE opportunity of observing at first-hand the processes of cultural change is afforded the social scientist by the Negroes of the New World, and nobody has taken advantage of this to better effect than Professor and Mrs. Herskovits. The present volume is a continuation of their research into the physical anthropology and ethnology of these peoples, which was initiated in 1923 by a study of Negro-White crosses in the United States and has since involved field work in South America and the Caribbean, West Africa and, recently, Haiti. It discusses material collected in the course of two expeditions to Dutch Guiana during 1928 and 1929, and is for the most part confined to the coastal Negroes of that colony, those of the interior having been described in the authors' earlier *Rebel Destiny*, as well as in a number of more technical papers.

Treatment falls into three sections. The first of them deals with the Negroes living in the seaport of Paramaribo and is a well-balanced account of their culture, ranging from daily life and its socio-economic concomitants to such institutionalized behaviour as the lesbian *mati* relationship and spirit possession. The second consists of folk-tales, riddles, proverbs and dreams, which are given in the vernacular *taki-taki* faced by an English translation. A hundred and forty-eight examples of the tale—known in Dutch Guiana, as elsewhere in Negro America, by the generic term "*Anansi-story*"—are very fully documented with references to parallels from Africa and the New World. An important contribution to the study of language is provided by the approach developed to the problem of "pidgin" dialects. This recognizes the independence of the three fundamental linguistic elements, vocabulary, phonetics and grammar, and stresses the adaptability to prevailing speech-patterns of the first of these and the tenacity of the idiomatic side of the last, the argument being pointed by evidence from Negro-English and Negro-French sources.

It is not within the reviewer's competence to give due measure to the third section on music, which contains elaborate illustrations of the religious and secular songs of both Town and Bush Negroes, together with a few from Haiti, but the reputation of Dr. Kolinski, who is responsible for the transcriptions of phonograph records made in the field and an analysis of tonal structure, should be enough to satisfy critics as to its authority. Such material is of extreme importance for those interested in the phenomena of acculturation, since it considers an aspect which has received scant attention from the majority of ethnographers, either through lack of specialized training or failure to realize its potentialities.

The greatest significance of Professor and Mrs. Herskovits' work for anthropologists and eugenicists alike will be found in its appreciation of the extent to which New World Negro cultures are affected by contact with European customs, values and policies. How far have traditional norms of

behaviour been retained, abandoned or transformed as the result of the vast sociological experiment unwittingly set in motion by the slave trade? Under what conditions of stress and strain arising from the conflict between disparate cultural elements can a society integrate itself sufficiently to become a functioning whole? It is with such problems that modern anthropology must increasingly be concerned, and *Suriname Folk-Lore* will take its place as an impressive step towards their solution.

J. C. TREVOR.

ANIMAL BEHAVIOUR

Darling, F. Fraser. *A Herd of Red Deer. A Study of Animal Behaviour.* London, 1937. Oxford University Press. Pp. 215. Price 15s.

THE habits of red deer have often been written about, but it is doubtful if they have ever before been the subject of such painstaking observation and felicitous statement as has been accorded them by Dr. Fraser Darling. Deer are more to Dr. Darling than just material for scientific description. "I have had," he writes, "the love of them, neither wish nor necessity to do them harm, and a long time to watch them through all seasons of the year." And Dr. Darling has also had the joy of observing them in country where "the individual hills and glens have their own characters, and rivers achieve almost a personality in the imagination"; in country where "the burns fall to the waters of Fionn Loch, gleaming as white as its name in the June sun"; in country where he heard the singing of women and the laughter of little children, and neither knew nor cared whether they were the sounds of wind or of falling water.

The deer which he stalked for two years roam the forests of Dundonnell, Gruinard, and Letterewe in north-west Scotland. The average age to which the animals live is fifteen years, and about 60 per cent. of the hinds breed each year. The sex-ratio is 35.6 males to 64.4 females, various factors, in addition to hunting, operating against the

survival of the male. The density of the population as a whole is affected by food-supply, worm-infestation, predatory enemies, and also by anti-social behaviour—for since stags fight in and out of season, they will kill calves and strange hinds when they are crowded together. Mortality, as is usual, is highest in the first year of life, and amounts to about 50 per cent. The deer in the herds which were studied number about 1,300; about sixty animals join the adult group, and some fifty-five stags are shot each year.

Red deer, Dr. Darling writes, "are essentially gregarious and their social system is matriarchal. The stag never attains to leadership, and the first stag in rut which may be running round a group of fifty hinds still has no power of leadership. When more stags come into rut and the first one loses some of his hinds, he is not master of the whole territory of the hinds and the stags which are then with them, but only of the few he can keep together. The sexes are separate for the greater part of the year, and the social constitution of hind groups and stag companies presents many points of difference and contrast." The hind groups, which may consist of several families, are cohesive; stag companies are loose formations. Dr. Darling makes a very interesting story of the sexual and reproductive behaviour of the deer, and of the interplay of the hind and stag groups during the rutting season.

It is a great pity, however, that he is not consistent in his scientific descriptions, and that his æsthetic appreciation of the world around him often finds itself out of sympathy with scientific method. Dr. Darling, to whom such things appear to matter a great deal, affirms the faith of the organismic or holistic student of behaviour, and although this is no place to discuss philosophical issues, it is necessary to point out that such a faith has little meaning to the empiricist philosopher and that it forms no useful part of the armament of the scientific worker. Dr. Darling gives as his aim to know what an animal is doing, what it has been doing, and what it is likely to be doing soon. In realising it, he is led in several directions, among